

RNA extraction from sugarcane leaves.

ABSTRACT

There are many protocols used for RNA extraction from plants, which vary according to the composition of the tissue, the part of the plant, the cultivation area and the atmosphere. Here, in Malaysia, we will focus on RNA extraction from the sugarcane leaves (*Saccharum officinarum*) by using two different protocols and one RNA extraction kit and compare between them to find the best. In both protocols, we used general RNA extraction method, by using TRizol, chloroform and isopropanol, with different amount of TRizol, and leaves to get high yield from RNA with good quality. The samples were checked by using Nano-spectrophotometer to determine the carbohydrate and protein contamination as well as the amount of RNA in ($\mu\text{g}/\mu\text{l}$). This is a simple method to extract high quality RNA from Sugarcane leaf that is suitable for several applications. This method takes less time and money for RNA extraction and is effective for other tissues where the quality and quantity of RNA is highly affected by the presence of carbohydrate and ethanol.

Keyword: RNA extraction; RNA extraction kit; Sugarcane leaves; Malaysia.